

IMPACT, ATTENTION, INFLUENCE? POTENTIAL USE OF ALTMETRICS IN ACADEMIC LIBRARIES

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Librarian

OLA Super Conference, January 28, 2016



AGENDA

1. Understand the basics of altmetric data
2. Be familiar with sources of altmetric data & how to find it
3. Know how authors can use this data in their workflow
4. Be aware of how academic librarians can support altmetric data needs



WHY SHOULD WE CARE?

"That hallway conversation about a recent finding has moved to blogs and social networks"

(Priem, Taraborelli,
Groth, Neylon, 2010)

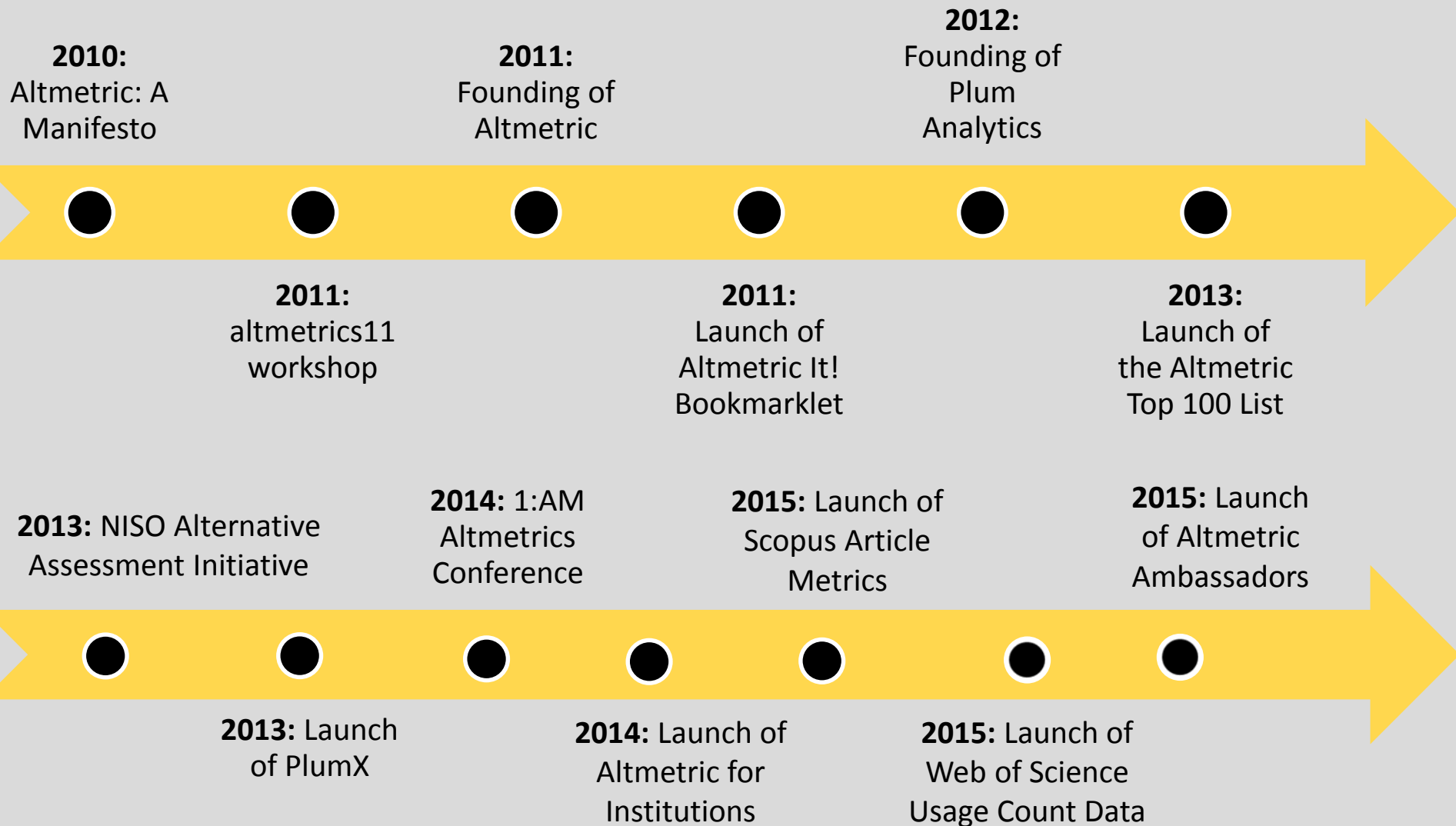


A DEFINITION

“The most widely used term to describe *alternative assessment metrics*. Coined by Jason Priem in 2010, the term usually describes *metrics that are alternative to the established citation counts and usage stats*—and/or metrics about alternative research outputs, as opposed to journal articles.”

(2014 NISO Alternative Metrics Initiative Phase 1 White Paper)





Compare Search terms ▼

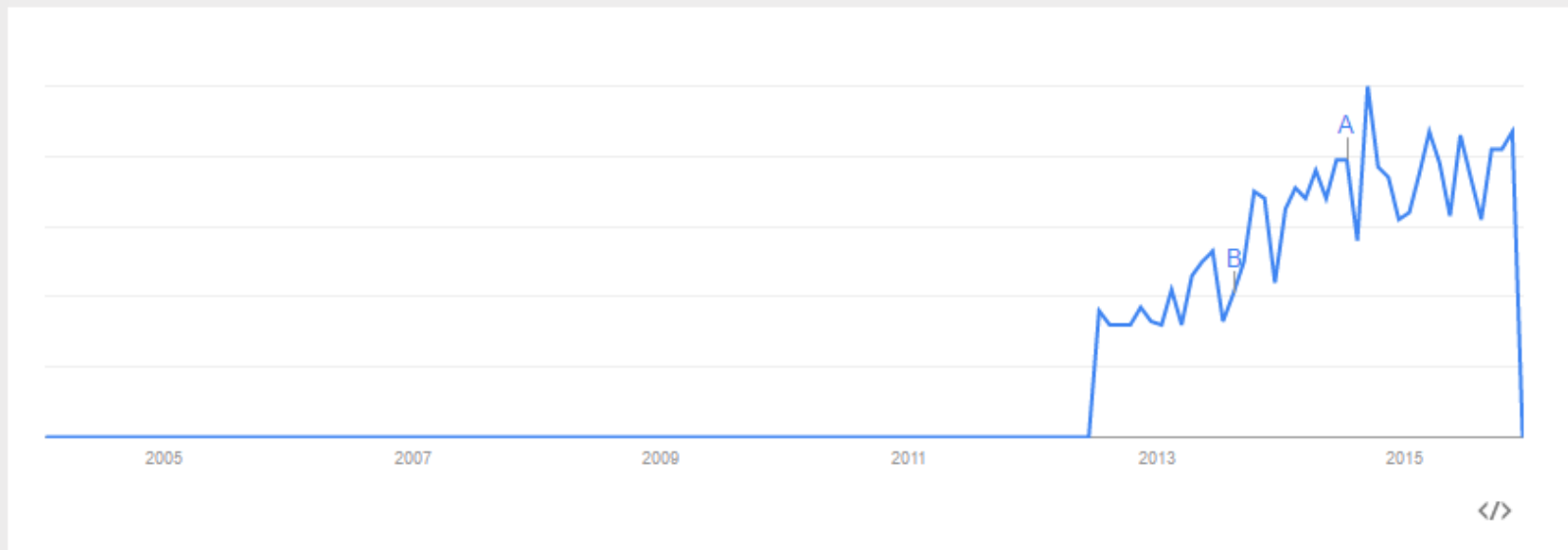
altmetrics

Search term

+ Add term

Interest over time ?

☒ News headlines ☐ Forecast ?



WHAT DOES IT LOOK LIKE?

Established metrics

- Total publications
- Total citations
- Average/mean number of citations
- Journal impact factor

Alternate metrics

- Tweets about research
- Facebook posts
- News mentions
- Blog posts
- Wikipedia mentions
- Attention to clinical trial study records

In between: Usage Statistics



ADVANTAGES



Elements of societal impact



Complements traditional metrics



Offers speed & discoverability



Open data advantage

DISADVANTAGES



No standard definition



Is not normalized



Time-dependent nature



Known tracking issues



SPME Research Group

@SPMEUW

326

FOLLOWERS

Last news: [#SPME](#) in cancer research: Targeting Mitochondria with Avocatin B Induces Selective Leukemia Cell Death <http://t.co/WuammukzfZ>

18 Jun 2015

↩ Reply ↻ Retweet ★ Favourite



CCSRI

@CCSresearch

Dr Paul Spagnuolo @UWPharmacy shows avocado-derived molecule selectively kills leukemia cells in Cancer Res: <http://t.co/2y9UBiMXqn>

16 Jun 2015

TIME

Avocados Can Fight Cancer, New Study Shows

TIME Magazine, 16 Jun 2015

Molecules derived from avocados target the stem cells of acute myeloid leukemia (AML)



CancerQuest

June 17 · 🌐

Avocados are not only delicious and nutritious, but may also fight cancer!

A research team at the University of Waterloo found a fatty acid in avocados (called avocatin B) that targets leukemia stem cells, the cells that allow leukemia to develop into a dangerous blood cancer.

Specifically, avocatin B was shown to work against acute myeloid leukemia (AML) cells. AML often progresses quickly and is difficult to treat. The drug kills AML stem cells, but does not harm normal cells.

The team of researchers, lead by Professor Paul Spagnuolo, is ecstatic about their finding because there are very few treatments that target leukemia stem cells. The team plans to move the treatment into clinical trials soon.

Hopefully, the new discovery can significantly improve the outlook for AML patients in the near future! The use of avocados (a personal favorite) as a new cancer treatment is a very exciting development! The work shows the importance of looking at foods as sources of non-toxic cancer treatment (and prevention) agents.

Learn more about drug discovery: <http://www.cancerquest.org/introduction-to-drugs.html>

News article: <https://uwaterloo.ca/.../avocados-may-hold-answer-beating-leu...>

Research article: <http://cancerres.aacrjournals.org/content/75/12/2478>

Picture: https://commons.wikimedia.org/wiki/File:Avocado_open.jpg...

#cancertreatment #nutraceuticals

#cancer #cancerquest #avocados #leukemia #fightcancer #drugdiscovery



94 Likes 1 Comment 41 Shares

FINDING ARTICLE-LEVEL DATA

Geared to Individual Use

- Free resources
 - » Journal websites
 - » Altmetric it! Bookmarklet
- Library Subscription
 - » Scopus
- Individual Subscription
 - » Impact Story

Geared to Institutional Use

- Subscription resources
 - » Altmetric for Institutions
 - » Plum Analytics



JOURNAL WEBSITES

SCIENTIFIC REPORTS



Home | For Authors | For Referees | About Scientific Reports

Article metrics for:

The biological impacts of the Fukushima nuclear accident on the pale grass blue butterfly

Atsuki Hiyama, Chiyo Nohara, Seira Kinjo, Wataru Taira, Shinichi Gima, Akira Tanahara & Joji M. Otaki

Scientific Reports **2**, Article number: 570 (2012) | doi:10.1038/srep00570

Last updated: 17 July 2015 17:42:31 EDT

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Scientific Reports **2**, Article number: 570 (2012) | doi:10.1038/srep00570

Last updated: 17 July 2015 17:42:31 EDT

Total citations

25

Web of Science

20

CrossRef

18

Scopus

Online attention




Altmetric score (what's this?)

- Tweeted by **2905**
- On **155** Facebook pages
- Mentioned in **31** Google+ posts
- Picked up by **18** news outlets
- 9** Reddit

[View more](#)



Applying systematic review search methods to the grey literature: a case study examining guidelines for school-based breakfast programs in Canada

Katelyn Godin , Jackie Stapleton, Sharon I. Kirkpatrick, Rhona M. Hanning and Scott T. Leatherdale

Systematic Reviews 2015 **4**:138 | DOI: 10.1186/s13643-015-0125-0 | © Godin et al. 2015

Received: 5 August 2015 | Accepted: 30 September 2015 | Published: 22 October 2015

Abstract

Background

Grey literature is an important source of information for large-scale review syntheses. However, there are many characteristics of grey literature that make it difficult to search systematically. Further, there is no 'gold standard' for rigorous systematic grey literature search methods and few resources on how to conduct this type of search. This paper describes systematic review search methods that were developed and applied to complete a case study systematic review of grey literature that examined guidelines for school-based breakfast programs in Canada.

Methods

A grey literature search plan was developed to incorporate four different searching strategies: (1) grey literature databases, (2) customized Google search engines, (3) targeted websites, and (4) consultation with contact experts. These complementary strategies were used to minimize the risk of omitting relevant sources. Since abstracts are often

[Download PDF](#)[Export citations](#) ▾

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[Abstract](#)
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[Methods](#)
[Results](#)
[Discussion](#)
[Conclusions](#)
[Declarations](#)
[References](#)

METRICS

Article accesses: 2849



Altmetric score from
[Altmetric.com](#)



ALTMETRIC IT! BOOKMARKLET

nature.com : Publications A-Z index Access provided to University of Waterloo by Porter Library Cart : Login

nature International weekly journal of science

Home | News & Comment | Research | Careers & Jobs | Current Issue | Archive | Audio & Video | For Authors

Archive > Volume 482 > Issue 7383 > Comment > Article

NATURE | COMMENT

Public health: The toxic truth about sugar

Robert H. Lustig, Laura A. Schmidt & Claire D. Brindis

[Affiliations](#) | [Corresponding author](#)

Nature **482**, 27–29 (02 February 2012) | doi:10.1038/482027a
Published online 01 February 2012

[PDF](#) [Citation](#) [Reprints](#) [Rights & permissions](#) [Article metrics](#)

Associated links

- Correspondence
- Health: EU fructose claim ignores risks

Editors' pick




Image credit: NASA/Corbis

Voices of Hubble: An oral history of the famous space telescope, 25 years after its

Altmetric it! 746

- Picked up by 9 news outlets
- Blogged by 24
- Tweeted by 615
- On 23 Facebook pages
- Mentioned in 16 Google+ posts
- On 1 videos

[Click for more details](#)



Study of the Therapeutic Effects of Intercessory Prayer (STEP) in cardiac bypass patients: A multicenter randomized trial of uncertainty and certainty of receiving intercessory prayer

(2006) American Heart Journal, 151(4), pp. 934-942

[Back to article](#)

Overview

Citations

Scholarly Activity

Mendeley, CiteULike, etc.

Scholarly Commentary

Blogs, Reviews, Wikipedia, etc.

Mass Media

Social Activity

Twitter, Facebook, etc.

Overview

[About Snowball Metrics](#)

Citation Count

127

Cited by in Scopus



Field-Weighted Citation Impact

8.74



Citation Benchmarking

96th percentile



Compared to Cardiology and Cardiovascular Medicine articles of the same age and document type



Mendeley



145 Readers

Mass Media



1 Item

Blogs



11 Posts

Wikipedia



4 Mentions

Twitter



900 Tweets

3 Other sources

94 Mentions

Engagement highlights

Scholarly Activity - 147 readers from 2 sources

Downloads and posts in common research tools



Mendeley: 145 Readers

Top Discipline: Medicine

Top Demographic: Researcher

[Save to Mendeley](#)



CiteULike: 2 Saves

Benchmark highlights

Based on 147 readers from 2 sources

Compared to Cardiology and Cardiovascular Medicine articles of same age and document type

All Scholarly Activity - 147

99TH PERCENTILE

[View all Scholarly Activity](#)

Social Activity - 994 mentions from 4 sources

Mentions characterized by rapid, brief engagement on platforms used by the general population, such as Twitter, Facebook, and Google +.



900 tweets from 516 accounts



9 Reddit posts from 4 accounts



73 Facebook posts from 71 accounts



12 Google+ posts from 8 accounts

Benchmark highlights

Based on 994 mentions from 4 sources

Compared to Cardiology and Cardiovascular Medicine articles of same age and document type

All Social Activity - 994

99TH PERCENTILE

[View all Social Activity](#)

Scholarly Commentary - 15 mentions

Mentions in scientific blogs, websites and publications

Mass Media - 1 story from 1 source

Coverage of research output in the mass media



UNIVERSITY OF
WATERLOO

INSTITUTIONAL EXAMPLES

- [University of Manchester](#)
- [Western University](#)
- [University of Pittsburgh](#)



LIBRARIAN ROLE

- Being informed
 - » Know the topic & tools
 - » Understand connection to author workflow
 - Publication profile, CV or résumé, advancement package, grant application, research proposal
- Sharing knowledge
 - » Discuss when there are opportunities
 - » Offer examples of good use
 - » Highlight mindful use



CAPTURING ATTENTION

Has a specific article received any online attention?

Has it been mentioned by any news sites or blogs?

Has anyone tweeted about it?

Who else is interested in the topic?

Also, how is the general public interacting with it?





AVOID SIMPLY COUNTING!

Author, A. (2015). "Title." Journal name. doi:10.000/10.100x

Citations: 4 / Twitter mentions: 21 / Mendeley bookmarks:
91 / Blog mentions: 12

(Duke, 2015)



MINDFUL USE

Author, A. (2015). "Title." *Journal name*. doi:10.000/10.100x

Paper covered by more than 100 media outlets worldwide, including *The Wall Street Journal* and *The Guardian*.

Recommended on 12 research blogs, putting it in the 99th percentile of Biology publications published in 2015. Was described as "a breakthrough study on examples" by prominent genetics and evolution researcher Rosie Redfield.

(Duke, 2015)

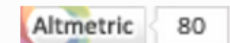


THE TECHNOLOGY

The screenshot shows the Nature journal website interface. At the top, there's a navigation bar with 'nature.com', 'Publications A-Z index', and 'Access provided to University of Waterloo by Porter Library'. The main header features the 'nature' logo and a search bar. Below the header, there are tabs for 'Home', 'News & Comment', 'Research', 'Careers & Jobs', 'Current Issue', 'Archive', 'Audio & Video', and 'For Authors'. The 'Archive' tab is selected, showing 'Volume 482', 'Issue 7383', 'Comment', and 'Article'. The article title 'Public health: The toxic truth about sugar' is prominently displayed, along with the authors 'Robert H. Lustig, Laura A. Schmidt & Claire D. Brindis'. Below the title, there are links for 'Affiliations' and 'Corresponding author'. The article details include 'Nature 482, 27–29 (02 February 2012)' and 'doi:10.1038/482027a'. At the bottom of the article section, there are buttons for 'PDF', 'Citation', 'Reprints', 'Rights & permissions', and 'Article metrics'. On the right side, there's an 'Associated links' section with 'Correspondence' and 'Health: EU fructose claim ignores risks'. Below that is an 'Editors' pick' section featuring a photo of astronauts and the text 'Voices of Hubble: An oral history of the famous space telescope, 25 years after its...'. An Altmetric widget is overlaid on the right side of the page, showing a circular chart with the number 746 and a list of metrics: 'Picked up by 9 news outlets', 'Blogged by 24', 'Tweeted by 615', 'On 23 Facebook pages', 'Mentioned in 16 Google+ posts', and 'On 1 videos'. A 'Click for more details' link is also present.

Patrick, S. C., Bearhop, S., Bodey, T. W., **Grecian, W. J.**, Hamer, K. C., Lee, J. & Votier, S. C. (2015) Individual seabirds show consistent foraging strategies in response to predictable fisheries discards. *Journal of Avian Biology* 46 (5): 431-440

Web / PDF



FOR AUTHORS

- [Altmetrics in action: examples and feedback from data-savvy researchers](#)
- [Altmetrics in action: applications for researchers](#)
- [How I use altmetrics in my research proposals: a researcher's account](#)
- [How to save time finding your “broader impacts” for grant applications](#)
- [23 diverse metrics to use in your next grant application](#)
- [Altmetrics in higher education institutions: Three case studies](#)



THE LANGUAGE

Mindful use

Snapshot of
online attention

Context is
everything

Elements
of societal
impact

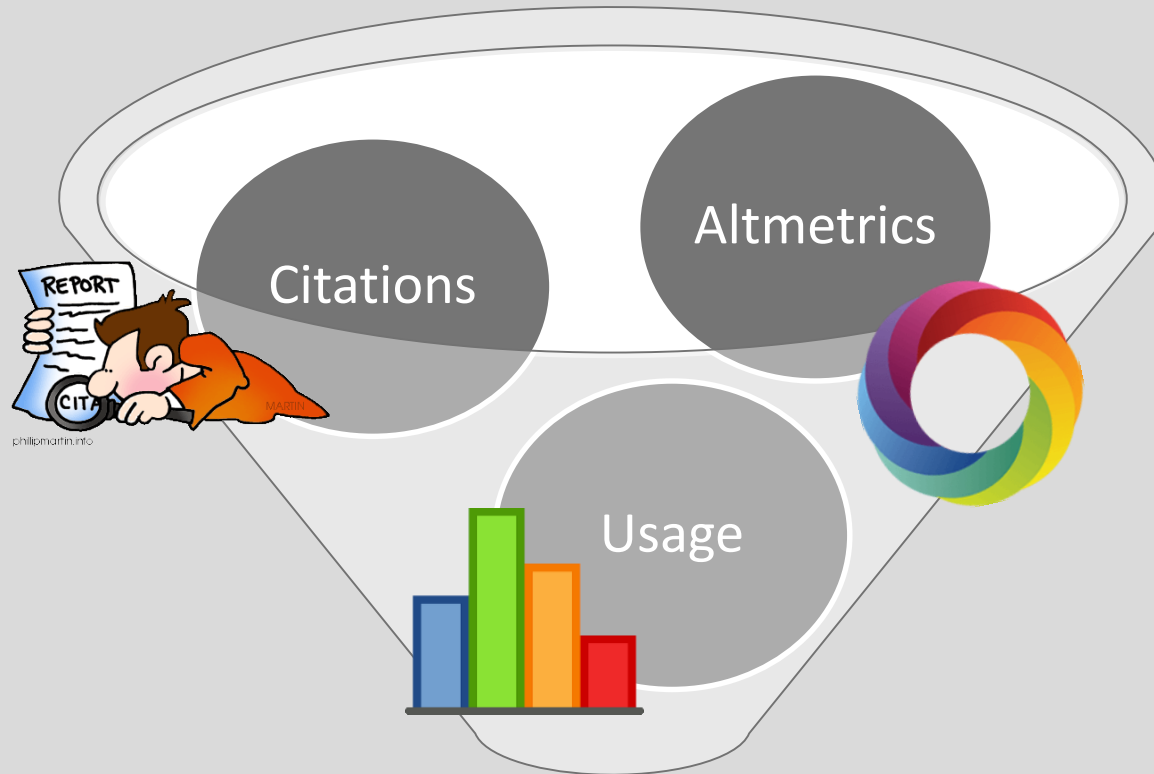
Trends

Meaningful
data

Telling a
story



BASKET OF MEASURES



MINDFUL USE

1. Use altmetrics to complement other bibliometric measures (basket of measures!).
2. Use altmetrics when citations may not be helpful for understanding how a work is gaining attention.
3. *Use altmetrics to better understand online attention surrounding a scholarly article, and not a work's full impact.*
4. Be aware that altmetric data is not normally peer-reviewed.
5. Do not compare altmetric data across disciplines!



RECOMMENDED RESOURCES

- [Altmetrics: A manifesto](#)
- #altmetrics
- [Altmetric blog](#)
- [Altmetrics for researchers \(Duke University\)](#)
- [Altmetrics research guide \(University of Waterloo\)](#)
- Meaningful metrics: A 21st century librarian's guide to bibliometrics, altmetrics, and research impact by Robin Chin Roemer and Rachel Borchardt (2015 book)
- [NISO Alternative Metrics Initiative Phase 1 White Paper](#)
- [Altmetrics in higher education institutions: Three case studies](#)
- [Riding the crest of the altmetrics wave: how librarians can help prepare faculty for the next generation of research impact metrics](#)
- [Validating online reference managers for scholarly impact measurement](#)
- [Do 'altmetrics' correlate with citations? Extensive comparison of altmetric indicators with citations from a multidisciplinary perspective](#)



Thank you!

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CITED SOURCES

- Duke University Medical Center Library & Archives. (Last updated 2015, December 8). *Altmetrics for researchers*. Retrieved from <http://guides.mclibrary.duke.edu/altmetrics>
- NISO. (2014, June 6). *NISO alternative metrics initiative phase 1 white paper*. Retrieved from http://www.niso.org/apps/group_public/download.php/13809/Altmetrics_project_phase1_white_paper.pdf
- Priem, J., Taraborelli, D., Groth, P., & Neylon, C. (2010). *Altmetrics: A manifesto*. Retrieved from <http://altmetrics.org/manifesto/>

